

Claims

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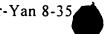
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- 1. A device incorporating a first radio system operating at a first range of frequencies of operation and a second radio system operating at a second range of frequencies of operation, wherein at least a part of said first and second range of frequencies overlap, wherein the device further comprises a control means adapted to control the first and second radio systems such that such that only one or the other radio system may transmit at any one time.
- 2. The device of claim 1, wherein the first radio system is a Bluetooth system and the second radio system is an IEEE 802.11 system.
 - 3. The device of claim 1, wherein the device is additionally controlled such that when one device is transmitting the other device cannot receive or transmit.
 - 4. The device of claim 3 wherein the device is additionally controlled such that when one device is receiving the other device cannot receive or transmit.
 - 5. The device of claim 2, wherein the control means comprises a switching means adapted to switch on and off the first and second radio systems.
 - 6. The device of claim 2, wherein the control means comprises a multiplexing means adapted to time multiplex transmissions from the first and second radio systems.
 - 7. The device of claim 2, wherein the control means comprises a multiplexing means adapted to time multiplex transmissions from the Bluetooth and IEEE 802.11 radio systems, the IEEE 802.11 and Bluetooth transmissions being multiplexed into Bluetooth time-slots.
- 8. The device of claim 7, wherein the Bluetooth transmissions are through a single HV2 SCO link connection, the IEEE 802.11 transmissions being in two time-slots in every four.
- 9. The device of claim 7, wherein the Bluetooth transmissions are through a single HV3 SCO link connection, the IEEE 802.11 transmissions being in four time-slots in every six.

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- 1 10. The device of claim 7, wherein the Bluetooth transmissions are through
- 2 two HV3 SCO link connections, the IEEE 802.11 transmissions being in two
- 3 time-slots in every six.
- 1 11. The device of claim 2, wherein the control means prevents transmission
- of IEEE 802.11 packets during a Bluetooth ACL packet transmission.
- 1 12. The device of claim 2, wherein the control means prevents transmission
- of Bluetooth ACL packets during an IEEE 802.11 packet transmission.
- 1 13. The device of claim 12 in which the first and second radio systems share
- 2 a common physical layer.
- 1 14. A method of incorporating a first radio system operating at a first range
- of frequencies of operation and a second radio system operating at a second
 - range of frequencies of operation, wherein at least a part of said first and second
- 4 range of frequencies overlap, into a single device, wherein the first and second
- 5 radio systems are controlled such that only one or the other radio system
- 6 transmits at any one time.
- 1 15. The method of claim 14, wherein the first radio system is a Bluetooth
- 2 system and the second radio system is an IEEE 802.11 system.
- 1 16. The method of claim 15 further comprising controlling the radio systems
- 2 such that when one radio system is transmitting the other cannot receive or
- 3 transmit.
- 1 17. The method of claim 16 further comprising controlling the radio systems
- such that when-one is receiving the other cannot receive or transmit.
- 18. The method of claim 15, wherein the radio systems are controlled by
- 2 switching on and off the first and second radio systems.
- 1 19. The method of claim 15, comprising time multiplexing transmissions
- 2 from the Bluetooth and IEEE 802.11 radio systems, the IEEE 802.11 and
- 3 Bluetooth transmissions being multiplexed into Bluetooth time-slots.





- 20. The method of claim 19, wherein the Bluetooth transmissions are through 1
- a single HV2 SCO link connection, the IEEE 802.11 transmissions being in two 2
- time-slots in every four. 3
- 21. The method of claim 19, wherein the Bluetooth transmissions are through 1
- a single HV3 SCO link connection, the IEEE 802.11 transmissions being in four 2
- time-slots in every six. 3
- 22. The method of claim 19, wherein the Bluetooth transmissions are through 1
- two HV3 SCO link connections, the IEEE 802.11 transmissions being in two 2
- time-slots in every six. 3
- 23. The method of claim 15 further comprising preventing transmission of 1
- IEEE 802.11 packets during a Bluetooth ACL packet transmission. 2
- 24. The method of claim 15 further comprising preventing transmission of 1
- Bluetooth ACL packets during an IEEE 802.11 packet transmission. 2
- 1 25. The method of claim 24 in which the first and second radio systems share
- a common physical layer. 2